IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 22, Issue 2 Ser.12 (February. 2023), PP 36-39
www.iosrjournals.org

Pregnancy in the rudimentary horn: A case report

Dr. Pearle Fernandes[(1)], Dr. Ankita Sinai Borkar[(2)], Dr. Mrinalini Sahasrabhojnee[(3)], Dr. Nidhi Ankolekar[(4)], Dr. Ankita Naik[(5)]

(1) Junior Resident, Department of Obstetrics and Gynaecology, Goa Medical College , Bambolim Goa.
(2) Lecturer, Department of Obstetrics and Gynaecology, Goa Medical College, Bambolim Goa.
(3) Associate Professor, Department of Obstetrics and Gynaecology, Goa Medical College, Bambolim Goa.
(4) Junior Resident, Department of Obstetrics and Gynaecology, Goa Medical College, Bambolim Goa.
(5) Junior Resident, Department of Obstetrics and Gynaecology, Goa Medical College, Bambolim Goa.

Abstract
Introduction: *Pregnancy in rudimentary horn is a rare event, that can have life threatening complications. Although, very rarely, there have been cases of rudimentary horn pregnancies resulting in live babies, almost 50% of the casesend up in rupture of the rudimentary horn and maternal collapse.*
Case report: *Here, we present a unique case where the patient presented at 27 weeks with intrauterine fetal demise, never diagnosed before with uterine anomaly.However, the diagnosis was made as the patient did not respond to induction of labour that raised the suspicion of a possible uterine abnormality. Subsequently,thediagnosis of unicornuate uterus with pregnancy in the rudimentary horn was made on ultrasonography, confirmed with MRI.*
Conclusion: As *continuation of pregnancy in a rudimentary horn can lead to catastrophic complications like rupture of the horn, it is vital that an early diagnosis is made. Treatment essentially is surgery (laparotomy/laparoscopy) followed by excision of the horn. A thorough clinical examination as well as routine 1st trimester detailed ultrasonography offers the best opportunity to evaluate uterine anatomy.*
Key words: *Pregnancy, rudimentary horn, unicornuate uterus.*

Date of Submission: 10-02-2023 Date of Acceptance: 22-02-2023

I. Introduction

A unicornuate uterus results from development of only one Mullerian duct, the incidence being, 1 in 4,020 in the general population.[1] The other Mullerian duct may remain partially developed resulting in a rudimentary horn with or without a cavity that may or may not be communicating with the uterus.[2]In 74% of the cases, unicornuateuterus may coexist with a rudimentary horn, 80-90% of which may be non-communicating.[3] The incidence of rudimentary horn pregnancy is estimated to be one in 76,000.[4] There may be a 50% risk of uterine rupture in such cases, as such management of such a condition entails, early recognition, resection of the rudimentary horn and the fallopian tube by either laparoscopy or laparotomy.[1]

Complications of rudimentary horn include dysmenorrhea, endometriosis, hematometra and pregnancy in rudimentary horn. It may be associated with renal tract abnormalities as well. In case of a non-communicating horn, pregnancy is thought to occur by transperitoneal migration of sperm or the conceptus.[5]

Pregnancy outcome is poor typically resulting in miscarriage, ectopic pregnancy, preterm labor, and malpresentation, intrauterine growth restriction and intrauterine fetal death. Adherent placenta may result due to poorly formed endometrium.[6,7]Although rupture of the horn is thought to occur in 50% of the cases, maternal mortality rate is less than 0.5%.[6,7]

II. Case Report:

A 26year old lady was admitted to our center at 27weeks of gestation. Patient was referred to Goa Medical College, Bambolim, with a diagnosis of intrauterine fetal demise. Patient complained of decreased fetal movements since 1 day. No history of abdominal pain/bleeding or leaking per vaginum.Patient had previously irregular menstrual cycles with cycle length of 45- 60 days, with no dysmenorrhea. At admission patient's general condition was good , vitals were stable.A physical examination of abdomen revealed a gravid uterus corresponding to a size of 24 weeks. A single cervix was detected on vaginal examination, os was closed. Abdominal ultrasound confirmedintrauterine fetal demise. Decision was taken to induce labour. A complete blood count and coagulation profile were normal. Medical induction of labour with misoprostol was attempted. There was no response to vaginal administration of 5 doses of 200 μg of misoprostol at interval of six hours. After 48 hours, mechanical induction was attempted using foley's catheter, kept in situ for 24hours, with no success. This raised the suspicion of a possible uterine anomaly, hence a detailed USG was done that revealed pregnancy in the rudimentary horn with unicornuate uterus. MRI was done to confirm the same. Laparotomy was done with a midline vertical incision. The rudimentary (non communicating) horn along with the fetus was excised along with the fallopian tube. The round ligament along with the ovarian ligament was subsequently stitched to the unicornuateuterus. Patient was discharged on the 6th post op day.

III. Discussion:

Pregnancy in a rudimentary horn is rare and as such the diagnosis is easy to miss unless the uterine anatomy is evaluated early in pregnancy. Typically rupture of the horn occurs between 10 and 20 weeks of pregnancy, although rupture has been reported at 34 weeks as well.[8,9]
10 percent of such pregnancies reach term with a fetal salvage rate of 2%.[10, 11]

Early diagnosis is essential to facilitate early treatment.History of dysmenorrhea may raise the suspicion although it may be absent as in our case, particularly if the endometrium is underdeveloped. Pelvic examination may aid in diagnosis if a normal sized uterus is deviated to one side in the presence of an adnexal mass. Although the sensitivity of ultrasound diagnosis is not very high (26%),[12] it should be remembered that sensitivity further reduces as the pregnancy advances as the growing pregnancy obscures the adjacent structures. Hence the importance of an early ultrasound cannot be overemphasized. MRI has been a useful tool for diagnosis. In our case the diagnosis was initially missed despite having done a scan.

Figure 1: Sagital image on MRI showing fibrous band connecting the rudimentary horn pregnancy with empty uterine cavity.

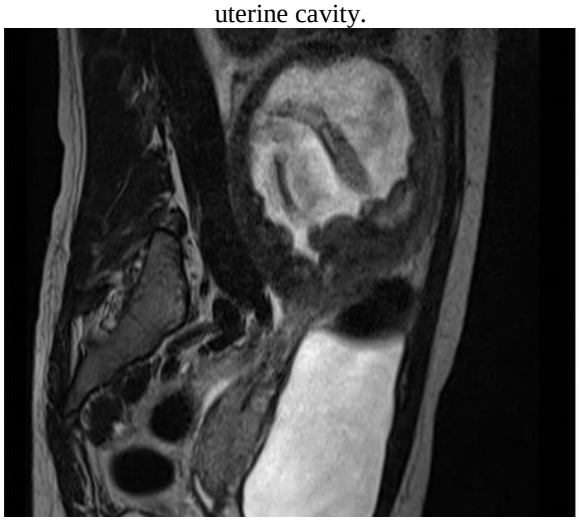


Figure 2: Intra-op findings showing rudimentary horn containing fetus.

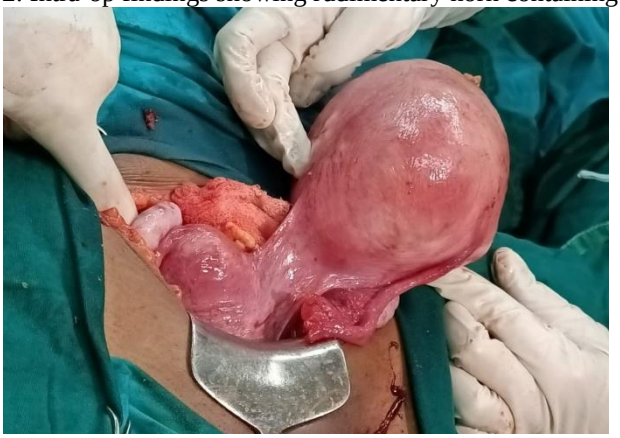
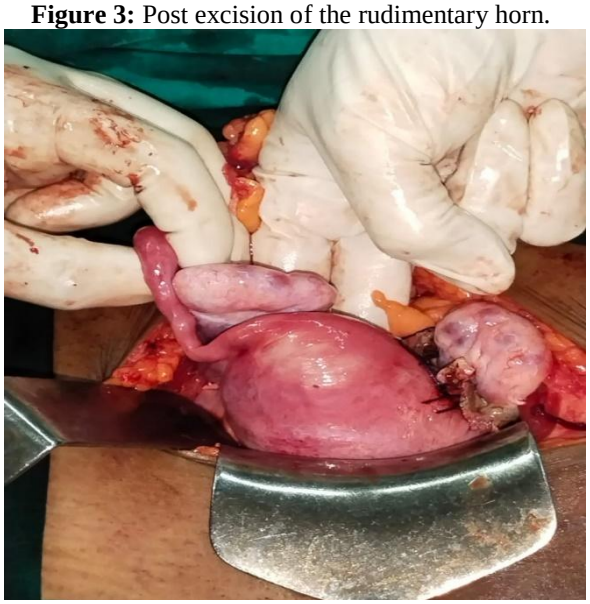


Figure 3: Post excision of the rudimentary horn.



IV. Conclusion:

Early diagnosis and treatment is the mainstay to avoid any untoward consequences.As continuation of pregnancy in a rudimentary horn can result in catastrophic complications like rupture of the horn, it is prudent to have an early diagnosis. Treatment in such a case would be surgery (laparotomy/laparoscopy) followed by excision of the horn. Medical and radiological personnel should maintain a high degree of alertness to prevent morbidity associated with this condition. This can be achieved by a good clinical history and raised clinical suspicion for uterine malformation as seen in the above case.Also a careful pelvic examination in the first trimestermay help by palpation of an adnexal mass deviating the uterus to one side thus provoking suspicion of a Mullerian anomaly.Routine 1st trimester ultrasonography in women offers the opportunity to evaluate uterine anatomy as well, for the purpose of early diagnosis.Association with renal anomalies in such cases warrants evaluation of the urinary system as well, hence its advisable to screen them with preoperative intravenous pyelography.

References:

[1]. Reichman D, Laufer MR, Robinson BK. Pregnancy outcomes in unicornuate uteri: a review. FertilSteril 2008;91:1886–94.

[2]. The American Fertility Society classifications of adnexal adhesions, distal tubal occlusion, tubal occlusion secondary to tubal ligation, tubal pregnancies, m€ullerian anomalies and intrauterine adhesions. FertilSteril 1988;49:944–55

[3]. Yu-Ju Lai et al. Pregnancy in a noncommunicating rudimentary horn of a unicornuate uterus: Prerupture diagnosis and management. Taiwanese Journal of Obstetrics &Gynecology 55 (2016) 604-606

[4]. Johansen K. Pregnancy in a rudimentary horn. ObstetGynecol 1983;61:565-7.

[5]. YfatKadan et al. Rudimentary Horn Pregnancy Diagnosed by Ultrasound and Treated by Laparoscopy–A Case Report and Review of the Literature. Journal of Minimally Invasive Gynecology (2008) 15, 527–530

[6]. Jayasinghe Y, Rane A, Stalewski H, Grover S. The presentation and early diagnosis of the rudimentary uterine horn. Obstet Gynecol. 2005; 105:1456–1467.

[7]. Nahum GG. Rudimentary uterine horn pregnancy: the 20th century worldwide experience of 588 cases. J Reprod Med. 2002;47:151–163.
[8]. Sönmezer M, Taskin S, Atabekoğlu C, Güngör R, Unlü C. Laparoscopic management of rudimentary uterine horn pregnancy: Case report and literature review. *JSLS.* 2006;10:396–9 9.
[9]. Açmaz G, Tayyar A, Öner G, Tayyar M. Live birth in an unruptured communicating rudimentary horn pregnancy at 32 weeks: Case report. *Med J Bakirköy.* 2008;4:170–2.
[10]. Rolen AC, Choquette AJ, Aemmens JP. Rudimentary uterine horn: Obstetric and gynecologic complications. ObstetGynecol 1966;68:224-30.
[11]. Pal K, Majumdar S, Mukhopadhyay S. Rupture of rudimentary uterine horn pregnancy at 37 weeks gestation with fetal survival. Arch GynecolObstet 2006;274:325-6.
[12]. Nishi H, Funayama H, Fukumine N. Rupture of pregnant noncommunicating rudimentary uterine horn with fetal salvage: A case report. Arch GynecolObstet 2003;268:224-6.

Dr.Pearle Fernandes, et. al. "Pregnancy in the rudimentary horn: A case report." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 22(2), 2023, pp. 36-39.